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UNIVERSITI SAINS MALAYSIA

Second Semester Examination  
Academic Session 2012/2013

June 2013

**RQG 237 – Measurement 2**  
***[Pengukuran Kuantiti 2]***

Duration: 2 hours  
*[Masa: 2 jam]*

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Please check that this examination paper consists of TWELVE pages of printed material before you begin the examination.

*Sila pastikan bahawa kertas peperiksaan ini mengandungi DUABELAS muka surat yang tercetak sebelum anda memulakan peperiksaan ini.*

Students are allowed to answer all questions in English OR in Bahasa Malaysia.

*Pelajar dibenarkan menjawab semua soalan dalam Bahasa Inggeris ATAU Bahasa Malaysia.*

Method of measurement should be in accordance to the Standard Method of Measurement for Building Works, 2nd edition (SMM2) and Malaysian Civil Engineering Standard Method of Measurement (CESMM), where applicable.

*Kaedah pengukuran perlu berdasarkan kepada prinsip-prinsip dalam Kaedah Ukuran Piawai bagi Kerja Bangunan Edisi Kedua (SMM2) dan Kaedah Ukuran Piawai bagi Kerja Kejuruteraan Awam (CESMM), mengikut kesesuaian.*

Answer **ALL** questions.

Jawab **SEMUA** soalan.

In the event of any discrepancies, the English version shall be used.

*Sekiranya terdapat sebarang percanggahan pada soalan peperiksaan, versi Bahasa Inggeris hendaklah digunakan.*

...2/-

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1. (a) Take-off the quantities for all related structural steel works Truss 7 (T7) as in accordance to the drawings SS/1 of 5 to SS/5 of 5.

*Ukurkan kuantiti untuk semua kerja struktur besi Kerangka 7 (T7) berdasarkan kepada lukisan bertajuk SS/1 of 5 to SS/5 of 5.*

NOTES FOR STEEL WORKS

1. UNLESS OTHERWISE STATED ALL STRUCTURAL STEEL TO BE IN ACCORDANCE TO B.S. 449
2. ALL FILLET WELDS TO BE 6MM UNLESS OTHERWISE STATED.
3. ALL STEELWORKS SHALL BE PAINTED WITH ZINC CHROMATE PRIMER AND AFTER ERECTION APPLY TWO COATS OF MICACEOUS IRON OXIDE (ONE UNDER COAT AND ONE FINISHING COAT, ALLOW 8 HOURS OR OVERNIGHT DRYING BEFORE RECOATING.

(100 marks/markah)

2. Take-off the quantities for 900mm wide drain ONLY, all in accordance to the drawing "Lukisan EWD/1 – 2" and schedule "Jadual EWD/1".

*Ukurkan kuantiti untuk longkang 900mm lebar SAHAJA berdasarkan lukisan bertajuk "Lukisan EWD/1 – 2" dan jadual bertajuk "Jadual EWD/1".*

(100 marks/markah)

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3. Measure all the items connected with concreting works (insitu concrete, formwork and reinforcement) for the Staircase clouded in Drawing S/CASE 1 and S/CASE 2. Concrete is Grade 25.

*Ukur segala item yang berkaitan dengan kerja-kerja konkrit (konkrit insitu, acuan dan tetulang) untuk tangga yang dibulatkan dalam Lukisan S/CASE 1 dan S/CASE 2. Konkrit ialah Gred 25.*

(100 marks/markah)

...4/-